

MES COLLEGE OF ENGINEERING-KUTTIPPURAM  
DEPARTMENT OF COMPUTER APPLICATIONS  
20MCA245– MINI PROJECT

**Mini Project Proposal (III Semester MCA)**

Approval of the mini project proposal is mandatory to continue and submit the project work.

The mini project proposal should clearly state the project objectives and the environment of the proposed project to be undertaken.

The following documents are to be submitted for approval

1. Pro forma for approval of the mini project (Present in this document)
2. Synopsis/Abstract with following contents
  - i. Title of the Mini Project.
  - ii. Introduction and Objectives of the Project.
  - iii. Tools / Platform, Hardware and Software Requirement
  - iv. Problem Definition and Initial Requirements
  - v. Basic functionalities of the project

The abstract should be submitted in the format given in the 3rd page of this document.

The Abstract in the given format shall be uploaded on or before **01.12.21**



## **Introduction:**

Blood transfusion has critical importance for human survival in risky situations that may occur. The number of possible donors and blood donation probabilities can be determined by using machine learning approaches. When the need for blood occurs in the future, medical professionals can predict potential donors for blood supply. Machine learning algorithms can support the blood transfusion process using datasets. When it comes to human health, data analysis is carried out to help prevent situations that will have critical consequences. By looking at the results of the data analysis, donors who may donate blood can be detected. In order to make this process carried out as expected, accurate and complete access to existing records must be provided. Blood transfusion has been provided for many years. The first successful transfusion was between two dogs in 1665. First medical usage of human blood in a transfusion was occurred in 1818. Today, blood donation still has a vital value for saving human life..

## **Objectives:**

- It is aimed to create a data based system to monitor and estimate potential blood donors
- Using datasets it can analyse the last donation performance details of the donor
- Machine learning methods are used to analyse the number of donors who can donate blood

## **Problem Definition:**

### Existing System:

In existing system when someone needs blood they have to contact other hospitals or persons, but there is only a small chance to get donor having same blood. In a risky situation we cannot take so much time for finding a perfect blood donor.

### Proposed system

In this project the performances of the two most successful classification algorithms were compared on the blood transfusion data set. By using machine learning models, it is thought to increase the connection between people who need blood and donor. In addition, an estimate was made to see whether the blood donor will donate blood in correct time. By using these findings, it may be beneficial to prevent risky situations. In this way, it may be easier to reach the right blood donor as soon as possible when blood is needed

## **USER MODULES:**

- Users
- Blood bank

### **USERS**

- Registration
- Login
- View blood requirements
- Accept blood request
- Donate
- Search blood

### **BLOOD BANK**

- Login
- Add blood requirements
- View request status
- Update donation information

- Probability check

## HARDWARE AND SOFTWARE REQUIREMENT

This specifies the hardware and the support software required to carry out the development

### Software Requirements

One of the most difficult task is selecting software for the system, once the system requirements is found out then we have to determine whether a particular software package fits for those system requirements. The application requirement:

- OPERATING SYSTEM: WINDOWS 10
- FRONT END: HTML, CSS, JAVASCRIPT
- BACK END: Mysql
- IDE USED: JetBrains Pycharm, Android studio
- TECHNOLOGY USED: PYTHON JAVA
- FRAME WORK USED: Flask

### Hardware Requirements

The selection of hardware is very important in the existence and proper working of any software. Then selection hardware, the size and capacity requirements are also important.

- Processor : Intel Pentium Core i3 and above, 64 bits
- RAM : Min3GB RAM
- HARD DISK: 10 GB